

# United States Patent and Trademark Office

UNITED STATES DEPARTMENT OF COMMERCE United States Patent and Trademark Office Address: COMMISSIONER FOR PATENTS P.O. Box 1450 Alexandria, Virginia 22313-1450 www.uspto.gov

DATE MAILED: 03/27/2006

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/089,395	07/17/2002	Frank Kowalewski	10191/2328	5213
26646	590 03/27/2006		EXAM	INER
	KENYON LLP	LY, ANH VU H		
ONE BROAD NEW YORK,			ART UNIT	PAPER NUMBER
NEW TORK,	10004		2616	

Please find below and/or attached an Office communication concerning this application or proceeding.

·	Application No.	Applicant(s)	
	10/089,395	KOWALEWSKI, FRANK	
Office Action Summary	Examiner	Art Unit	
	Anh-Vu H. Ly	2616	
The MAILING DATE of this communication are seriod for Reply	on appears on the cover sheet w	ith the correspondence address	
A SHORTENED STATUTORY PERIOD FOR F WHICHEVER IS LONGER, FROM THE MAILII  - Extensions of time may be available under the provisions of 37 of after SIX (6) MONTHS from the mailing date of this communicat  If NO period for reply is specified above, the maximum statutory  Failure to reply within the set or extended period for reply will, by Any reply received by the Office later than three months after the earned patent term adjustment. See 37 CFR 1.704(b).	NG DATE OF THIS COMMUNI CFR 1.136(a). In no event, however, may a ion. period will apply and will expire SIX (6) MOI statute, cause the application to become A	CATION. reply be timely filed NTHS from the mailing date of this communication. BANDONED (35 U.S.C. § 133).	
tatus			
1)⊠ Responsive to communication(s) filed on	<u>17 July 2002</u> .		
	This action is non-final.		
3) Since this application is in condition for a	llowance except for formal mat	ters, prosecution as to the merits is	
closed in accordance with the practice ur	nder <i>Ex parte Quayle</i> , 1935 C.E	D. 11, 453 O.G. 213.	
Disposition of Claims			
4) $\boxtimes$ Claim(s) <u>9-16</u> is/are pending in the applic	cation.		
4a) Of the above claim(s) is/are wi		•	
5) Claim(s) is/are allowed.			
6)⊠ Claim(s) <u>9-16</u> is/are rejected.			
7)⊠ Claim(s) <u>12</u> is/are objected to.			
8) Claim(s) are subject to restriction	and/or election requirement.		
pplication Papers	÷	·	
9)⊠ The specification is objected to by the Ex	aminer.		
10) The drawing(s) filed on is/are: a)		by the Examiner.	
Applicant may not request that any objection	· · · · · · · · · · · · · · · · · · ·		
Replacement drawing sheet(s) including the	correction is required if the drawing	g(s) is objected to. See 37 CFR 1.121(d).	
11) The oath or declaration is objected to by t	the Examiner. Note the attache	d Office Action or form PTO-152.	
Priority under 35 U.S.C. § 119			
12)⊠ Acknowledgment is made of a claim for fo	preign priority under 35 U.S.C.	§ 119(a)-(d) or (f).	
a)⊠ All b)□ Some * c)□ None of:			
1.⊠ Certified copies of the priority docu	ıments have been received.	•	
2. Certified copies of the priority docu	ıments have been received in A	Application No	
3. Copies of the certified copies of the	e priority documents have beer	received in this National Stage	
application from the International E	Bureau (PCT Rule 17.2(a)).		
* See the attached detailed Office action for	a list of the certified copies not	t received.	
		,	
Attachment(s)			
1) Notice of References Cited (PTO-892)	4) Interview	Summary (PTO-413)	

U.S. Patent and Trademark Office PTOL-326 (Rev. 7-05)

2) Notice of Draftsperson's Patent Drawing Review (PTO-948)

Paper No(s)/Mail Date 3/29/02;12/20/02.

3) Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)

Paper No(s)/Mail Date. \_\_\_\_

6) Other: \_

5) Notice of Informal Patent Application (PTO-152)

Application/Control Number: 10/089,395 Page 2

Art Unit: 2616

#### **DETAILED ACTION**

## Specification

1. The disclosure is objected to because of the following informalities: according to mode B as illustrated in Fig. 1C, a redundancy signal data block RD is transmitted and not a reference signal data block RD as disclosed by the specification in page 5, line 1.

Appropriate correction is required.

## Claim Objections

2. Claim 12 is objected to because of the following informalities: in lines 2 and 3, "selecting for at least one of further processing" and "a larger received signal" are unclear. It is unclear, what is selected for further processing, i.e., data blocks or data bursts and examiner believes a larger received signal strength, power, or energy, but not a larger received signal by itself.

Appropriate correction is required.

#### Claim Rejections - 35 USC § 102

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

- (e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.
- 3. Claims 9-10, 13, and 15-16 are rejected under 35 U.S.C. 102(e) as being anticipated by Jepsen et al (US Patent No. 6,724,815 B1). Hereinafter, referred to as Jepsen.

Art Unit: 2616

With respect to claim 9, Jepsen discloses a data transmission method (Fig. 2), comprising:

transmitting a data signal between a transmitter and a receiver (Fig. 1, base station 101 and remote stations 103, 107 communicating over radio channels 105. Herein, either the base station or the remote stations can be the transmitter or the receiver and vice versa) as a data stream of data bursts (Fig. 2) in at least a first transmission mode (Fig. 2, part 2) and a second transmission mode (Fig. 2, part 1);

in the first transmitting mode (Fig. 2, part 2), transmitting a reference signal by the transmitter in each data burst (col. 3, lines 54-56, a GSM burst consists of two blocks of data 203 surrounding a midamble 205 containing the training data. Herein, as illustrated in Fig. 2, part 2, each data burst containing a training sequence or TS 205), the reference signal being evaluated in the receiver (Fig. 1, remote stations 103 and 107 perform channel estimation using known training data, TS 205, as illustrated in Fig. 2); and

in the second transmission mode (Fig. 2, part 1), avoiding the reference signal by the transmitter in each data burst and instead transmitting additional redundancy data of the data signal in each data burst (col. 8, lines 10-13 and Fig. 4, the enhanced units being characterized by being able to transmit data instead of midamble and being able to receive GSM signals with midamble replaced by user data. Herein, the user data 205 as illustrated in Fig. 2, part 1, is considered as redundant data or extra data by the examiner in place of the midamble).

Art Unit: 2616

With respect to claim 10, Jepsen discloses that the additional redundancy data are provided by data of the data signal that are transmitted in repetition (Fig. 2, part 1, in second burst, data 203, 205 and 203 are transmitted in repetition or successively).

With respect to claim 13, Jepsen discloses that in the second transmission mode, eliminating interference in the transmitter (col. 8, lines 10-13 and Fig. 4, the enhanced units being characterized by being able to transmit data instead of midamble and being able to receive GSM signals with midamble replaced by user data, as illustrated in Fig. 2, part 1. Herein, interference is eliminated since the enhanced units transmit data in the allocated and assigned channels 411).

With respect to claim 15, Jepsen discloses that the data bursts have at least two data blocks (col. 3, lines 54-56, a GSM burst consists of two blocks of data 203 surrounding a midamble 205 containing the training data), between which a block is arranged which is used, in the first transmission mode, for the reference signal (Fig. 2, part 2, training sequence 205 is placed between two data blocks 203) and which is used, in the second transmission mode, for the additional redundancy data (Fig. 2, part 1, in second burst, training sequence 205 is replaced with extra or redundant data 205).

With respect to claim 16, Jepsen discloses selecting a data format for the data signal to be transmitted in both the first transmission mode and the second transmission mode so as to be identical (col. 8, lines 6-10 and Fig. 4, a GSM cellular communication system comprising

Art Unit: 2616

standard GSM mobile terminals, enhanced GSM mobile terminals, standard and enhanced base stations. Herein, data transmissions or data formats are in accordance to GSM standard).

## Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

- (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.
- 4. Claims 11-12 are rejected under 35 U.S.C. 103(a) as being unpatentable over Jepsen et al (US Patent No. 6,724,815 B1) in view of Brown et al (US Patent No. 5,113,413). Hereinafter, referred to as Jepsen and Brown.

With respect to claims 11 and 12, Jepsen discloses that the data transmitted in repetition received in repetition by the receiver (Fig. 2, part 1, in second burst, each data block 203 is received in repetition at the remote stations 103 and 107, illustrated in Fig. 1). Jepsen does not disclose evaluating data separately in the receiver and selecting at least one of data transmitted in repetition, assumed by examiner, for further processing, and delivery to a user a data version of the data transmitted in repetition having a larger received signal strength, assumed by examiner. Brown discloses that the sites, which receive the transmission, generate an "RSSI" indication of the quality of the received signal. The communication system typically may vote on redundant versions, data transmitted repeatedly, of the same received signal to select a single version of the received signal for use. Herein, the selected version is the one having better RSSI. It would

Art Unit: 2616

have been obvious to one having ordinary skill in the art at the time the invention was made to include voting and selecting features in Jepsen's system, as suggested by Brown, to produce a favorable voted frame signal.

5. Claim 14 is rejected under 35 U.S.C. 103(a) as being unpatentable over Jepsen et al (US Patent No. 6,724,815 B1) in view of Hobbis (US Patent No. 6,760,589 B1). Hereinafter, referred to as Jepsen and Hobbis.

With respect to claim 14, Jepsen discloses a method and apparatus for increasing data rate by reduction of training data (Fig. 2). Jepsen does not disclose transmitting a plurality of data streams simultaneously according to a CDMA technique. Hobbis discloses a CDMA communications system for transmitting a plurality of data streams simultaneously to subscriber unit 101 (Fig. 1). It would have been obvious to one having ordinary skill in the art at the time the invention was made to transmit CDMA data streams in Jepsen's system, as suggested by Hobbis, since CDMA system has more capacity than GSM system and CDMA virtually eliminates cloning and other types of fraud.

#### Conclusion

6. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

Derango et al (US Patent No. 5,867,491) discloses packet voting server and associated method for performing voting services on multiple radio channels simultaneously.

Art Unit: 2616

7. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Anh-Vu H. Ly whose telephone number is 571-272-3175. The examiner can normally be reached on Monday-Friday 7:00am - 4:00pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Chi Pham can be reached on 571-272-3179. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

avl